☐   ▓▓▓▓ Generate Collection ▓▓▓▓ | Print |


L35: Entry 3 of 10                      File: USPT              Mar 1, 2005


DOCUMENT-IDENTIFIER: US 6862609 B2
TITLE: Redundant storage for multiple processors in a ring network


Drawing Description Text (52):
FIG. 37 illustrates some of supported block sizes for Linux for various filesystem
types.

Drawing Description Text (53):
FIG. 38 illustrates some of supported cluster sizes for Windows NT and 2000 for
various filesystem types.

Drawing Description Text (56):
FIG. 40B depicts a read-ahead method using filesystem knowledge and read requests
as input.

Detailed Description Text (36):
RNS DADS cabinets or DASD strings can also be used as large Network Attached
Storage servers to provide Ethernet based storage area networks. An RNS can also be
configured to host multiple NFS, NCP, SMBFS, or iSCSI clients via an Ethernet
connection, as shown in FIGS. 11 and 12. In FIG. 11, DASD strings 1108, 1110, and
1112 are connected to an Ethernet network. As in FIG. 10, DASD strings 1108, 1110
and 1112 is composed of DASD cabinets labeled 1101. A client 1100 accesses the DASD
strings through the NCP protocol. Another client 1102 accesses the DASD string
through the NFS protocol. A third client 1104 accesses the DASD strings through the
iSCSI protocol. A fourth client 1105 accesses the DASD strings through the NCP,
NFS, and iSCSI protocols. In FIG. 12, a DASD string 1208 (again, composed of DASD
cabinets labeled 1201) is made available through Ethernet connections 1200, 1202,
1204, and 1206 to a client. The first connection 1200 accesses the string 1208
using the iSCSI protocol, the storage being accessible under/dev/sda and /dev/sdb.
The second connection 1202 accesses the string 1208 using the NCP protocol, the
storage being accessible under SYS:/ and VOL1:/. The third connection 1204 accesses
the string 1208 using the NFS protocol, the storage being accessible
under /mnt/remote. The fourth connection 1206 also accesses the string 1208 using
the NFS protocol, the storage being accessible under /mnt/remote1.

Detailed Description Text (69):
The hotfix redirection data area is a large table of free sectors that is used to
redirect read and write data to known good sectors. The hotfixing subsystem is
self-healing and self-describing. This means that if the hotfix table is attempting
to write to itself, and gets a read or write error, it has the capability of
hotfixing the hotfix table, and creating self-describing entries that allow it to
re-map its own sectors in the hotfix data area.

Detailed Description Text (114):
The SISCI virtual device mapping module creates virtual disk objects and exports
them to SCI attached hosts devices. The mirroring, hotfixing, and segment
journaling is implemented in the mirroring subsystem modules (M2CS and NWVP). The
configuration monitor daemon provides TCP service ports that can be used to
configure an RNS array over Ethernet via telnet or the RNS configuration utility.
The HSM data mining daemon creates "ghost mirrors" in user space of virtual disks

for dynamic device reconstruction and also performs array reconstruction from disk segment cache and tape archives for disaster recovery. This daemon provides HSM specific TCP service ports that allow data mining operations to be performed remotely from either an SCI interconnect or an Ethernet network. The HSM daemon is the <u>server</u> side component of the HSM management and configuration console.

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L35: Entry 4 of 10                          File: USPT                  Sep 21, 2004


DOCUMENT-IDENTIFIER: US 6795895 B2
TITLE: Dual axis RAID systems for enhanced bandwidth and reliability


Drawing Description Text (52):
FIG. 37 illustrates some of supported block sizes for Linux for various filesystem
types.

Drawing Description Text (53):
FIG. 38 illustrates some of supported cluster sizes for Windows NT and 2000 for
various filesystem types.

Drawing Description Text (56):
FIG. 40B depicts a read-ahead method using filesystem knowledge and read requests
as input.

Detailed Description Text (36):
RNS DADS cabinets or DASD strings can also be used as large Network Attached
Storage servers to provide Ethernet based storage area networks. An RNS can also be
configured to host multiple NFS, NCP, SMBFS, or iSCSI clients via an Ethernet
connection, as shown in FIGS. 11 and 12. In FIG. 11, DASD strings 1108, 1110, and
1112 are connected to an Ethernet network. As in FIG. 10, DASA strings 1108, 1110
and 1112 is composed of DASD cabinets labeled 1101. A client 1100 accesses the DASD
strings through the NCP protocol. Another client 1102 accesses the DASD string
through the NFS protocol. A third client 1104 accesses the DASD strings through the
iSCSI protocol. A fourth client 1105 accesses the DASD strings through the NCP,
NFS, and iSCSI protocols. In FIG. 12, a DASD string 1208 (again, composed of DASD
cabinets labeled 1201 is made available through Ethernet connections 1200, 1202,
1204, and 1206 to a client. The first connection 1200 accesses the string 1208
using the iSCSI protocol, the storage being accessible under /dev/sda and /dev/sdb.
The second connection 1202 accesses the string 1208 using the NCP protocol, the
storage being accessible under SYS:/ and VOL1:/. The third connection 1204 accesses
the string 1208 using the NFS protocol, the storage being accessible
under /mnt/remote. The fourth connection 1206 also accesses the string 1208 using
the NFS protocol, the storage being accessible under /mnt/remote1.

Detailed Description Text (69):
The hotfix redirection data area is a large table of free sectors that is used to
redirect read and write data to known good sectors. The hotfixing subsystem is
self-healing and self-describing. This means that if the hotfix table is attempting
to write to itself, and gets a read or write error, it has the capability of
hotfixing the hotfix table, and creating self-describing entries that allow it to
re-map its own sectors in the hotfix data area.

Detailed Description Text (114):
The SISCI virtual device mapping module creates virtual disk objects and exports
them to SCI attached hosts devices. The mirroring, hotfixing, and segment
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configuration monitor daemon provides TCP service ports that can be used to
configure an RNS array over Ethernet via telnet or the RNS configuration utility.
The HSM data mining daemon creates "ghost mirrors" in user space of virtual disks

for dynamic device reconstruction and also performs array reconstruction from disk segment cache and tape archives for disaster recovery. This daemon provides HSM specific TCP service ports that allow data mining operations to be performed remotely from either an SCI interconnect or an Ethernet network. The HSM daemon is the <u>server</u> side component of the HSM management and configuration console.

<u>Previous Doc</u>        <u>Next Doc</u>        <u>Go to Doc#</u>

# Freeform Search

**Database:**
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

**Term:**
L32    and SERVER

**Display:** 50    Documents in Display Format: FRO    Starting with Number 1

**Generate:** ○ Hit List ● Hit Count ○ Side by Side ○ Image

Search    Clear    Interrupt

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## Search History

**DATE:** Monday, November 28, 2005    Printable Copy    Create Case

| Set Name | Query | Hit Count | Set Name |
|---|---|---|---|
| side by side | | | result set |
| | *DB=USPT; PLUR=YES; OP=OR* | | |
| L35 | L32 and SERVER | 10 | L35 |
| L34 | L33 AND SERVER | 0 | L34 |
| L33 | L32 and SAN | 0 | L33 |
| L32 | ("self-describing" ) and (filesystem) | 10 | L32 |
| L31 | (self near describing ) same (filesystem) | 0 | L31 |
| | *DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR* | | |
| L30 | l29 and server | 2 | L30 |
| L29 | 6493804.pn. | 2 | L29 |
| L28 | 20040236745.pn. | 2 | L28 |
| L27 | L25 and filesystem | 2 | L27 |
| L26 | L25 and filesystem | 2 | L26 |
| L25 | formal near description | 650 | L25 |
| L24 | (filesystem near description) | 2 | L24 |
| | *DB=USPT; PLUR=YES; OP=OR* | | |
| L23 | (filesystem near description) | 1 | L23 |
| | *DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR* | | |

| L22 | client and (filesystem near description) | 2 | L22 |
|---|---|---|---|
| L21 | L20 and (filesystem near description) | 1 | L21 |
| L20 | client near filesystem | 52 | L20 |

*DB=USPT; PLUR=YES; OP=OR*

| L19 | description near filesystem | 1 | L19 |
|---|---|---|---|
| L18 | (description) and filesystem | 585 | L18 |

*DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR*

| L17 | (formal near description) and filesystem | 2 | L17 |
|---|---|---|---|
| L16 | L15 and (formal near description) | 0 | L16 |
| L15 | client near "file system" | 669 | L15 |
| L14 | client near filesystem | 52 | L14 |
| L13 | L12 and (access near storage) | 7 | L13 |
| L12 | (formal near description) and ((file near system) or filesystem) | 68 | L12 |
| L11 | L10 and (script near function) | 2 | L11 |
| L10 | L9 and (web near page$) | 15 | L10 |
| L9 | L7 and (menu$) | 18 | L9 |
| L8 | L7 and (menu near table) | 0 | L8 |
| L7 | L3 and (file near script$) | 21 | L7 |
| L6 | L5 and (file near script$) | 0 | L6 |
| L5 | L3 and (menu near table) | 2 | L5 |
| L4 | L3 and (menu near highlighted near item) | 2 | L4 |
| L3 | L2 and (highlighted near text) | 383 | L3 |
| L2 | 715/$.ccls. | 23325 | L2 |
| L1 | menu near spacer near function | 0 | L1 |

END OF SEARCH HISTORY

# Freeform Search

**Database:**

US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

**Term:**

129 and server

**Display:** 50 Documents in <u>Display Format:</u> - Starting with Number 1

**Generate:** ○ Hit List  ◉ Hit Count  ○ Side by Side  ○ Image

[Search]  [Clear]  [Interrupt]

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## Search History

**DATE:** Monday, November 28, 2005  <u>Printable Copy</u>  <u>Create Case</u>

| <u>Set Name</u> <u>Query</u> | <u>Hit Count</u> | <u>Set Name</u> |
|---|---|---|
| side by side | | result set |
| *DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR* | | |
| <u>L30</u>  l29 and server | 2 | <u>L30</u> |
| <u>L29</u>  6493804.pn. | 2 | <u>L29</u> |
| <u>L28</u>  20040236745.pn. | 2 | <u>L28</u> |
| <u>L27</u>  L25 and filesystem | 2 | <u>L27</u> |
| <u>L26</u>  L25 and filesystem | 2 | <u>L26</u> |
| <u>L25</u>  formal near description | 650 | <u>L25</u> |
| <u>L24</u>  (filesystem near description) | 2 | <u>L24</u> |
| *DB=USPT; PLUR=YES; OP=OR* | | |
| <u>L23</u>  (filesystem near description) | 1 | <u>L23</u> |
| *DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR* | | |
| <u>L22</u>  client and (filesystem near description) | 2 | <u>L22</u> |
| <u>L21</u>  L20 and (filesystem near description) | 1 | <u>L21</u> |
| <u>L20</u>  client near filesystem | 52 | <u>L20</u> |
| *DB=USPT; PLUR=YES; OP=OR* | | |
| <u>L19</u>  description near filesystem | 1 | <u>L19</u> |
| <u>L18</u>  (description) and filesystem | 585 | <u>L18</u> |

*DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR*

| L17 | (formal near description) and filesystem | 2 | L17 |
|---|---|---|---|
| L16 | L15 and (formal near description) | 0 | L16 |
| L15 | client near "file system" | 669 | L15 |
| L14 | client near filesystem | 52 | L14 |
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| L12 | (formal near description) and ((file near system) or filesystem) | 68 | L12 |
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| L9 | L7 and (menu$) | 18 | L9 |
| L8 | L7 and (menu near table) | 0 | L8 |
| L7 | L3 and (file near script$) | 21 | L7 |
| L6 | L5 and (file near script$) | 0 | L6 |
| L5 | L3 and (menu near table) | 2 | L5 |
| L4 | L3 and (menu near highlighted near item) | 2 | L4 |
| L3 | L2 and (highlighted near text) | 383 | L3 |
| L2 | 715/$.ccls. | 23325 | L2 |
| L1 | menu near spacer near function | 0 | L1 |

END OF SEARCH HISTORY

# Hit List

**Search Results - Record(s) 1 through 2 of 2 returned.**

☐ 1. Document ID: US 6493804 B1

**Using default format because multiple data bases are involved.**

L30: Entry 1 of 2                    File: USPT                    Dec 10, 2002

US-PAT-NO: 6493804
DOCUMENT-IDENTIFIER: US 6493804 B1

TITLE: Global file system and data storage device locks

DATE-ISSUED: December 10, 2002

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------|------|-------|----------|---------|
| Soltis; Steven R. | Rochester | MN | | |
| O'Keefe; Matthew T. | Plymouth | MN | | |
| Ruwart; Thomas M. | Fridley | MN | | |
| Houlder; Gerald A. | Bloomington | MN | | |
| Coomes; James A. | White Bear Lake | MN | | |
| Miller; Michael H. | Eden Prairie | MN | | |
| Soltis; Edward A. | Elk River | MN | | |
| Gilson; Raymond W. | St. Paul | MN | | |
| Preslan; Kenneth W. | Minneapolis | MN | | |

US-CL-CURRENT: 711/152; 707/10, 707/9, 711/153

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw De

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☐ 2. Document ID: US 6493804 B1

L30: Entry 2 of 2                    File: DWPI                    Dec 10, 2002

DERWENT-ACC-NO: 2003-327427
DERWENT-WEEK: 200331
COPYRIGHT 2005 DERWENT INFORMATION LTD

TITLE: Data storage device in networked computer system, includes locking mechanism
which controls access to particular storage block, based on control signals
received from distributed computer system

INVENTOR: COOMES, J A; GILSON, R W ; HOULDER, G A ; MILLER, M H ; O'KEEFE, M T ;
PRESLAN, K W ; RUWART, T M ; SOLTIS, E A ; SOLTIS, S R

PRIORITY-DATA: 1997US-061028P (October 1, 1997), 1998US-0164957 (October 1, 1998)

PATENT-FAMILY:

| PUB-NO | PUB-DATE | LANGUAGE | PAGES | MAIN-IPC |
|---|---|---|---|---|
| US 6493804 B1 | December 10, 2002 | | 037 | G06F012/00 |

INT-CL (IPC): G06 F 12/00

ABSTRACTED-PUB-NO: US 6493804B
BASIC-ABSTRACT:

NOVELTY - A locking mechanism controls access to particular storage block provided on storage device, based on control signals received through communication interface from the distributed computer system residing on both the remote processing clients.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) distributed computer system;

(2) method of using distributed computer system; and

(3) computer-readable medium having instructions to use distributed computer system.

USE - For managing shared data storage on networked computer system.

ADVANTAGE - Maintains data consistency when storage contents are shared by multiple clients. Allows the use of serverless distributed architecture global file system to access content from storage device. Allows high speed data transfer across the network and eliminates risk of server failures, reduces system cost and complexity. There is no need of communication between clients to arbitrate for the shared resources. The client's failure due to direct attachment of shared storage device to the client, is avoided. Minimizes overhead steps for transferring data from shared storage device.

DESCRIPTION OF DRAWING(S) - The figure shows the table illustrating sequence of events undertaken by clients in accessing shared data.

| Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw Dc |

| Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS |

| Term | Documents |
|---|---|
| SERVER | 362825 |
| SERVERS | 99062 |
| (29 AND SERVER).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD. | 2 |
| (L29 AND SERVER ).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD. | 2 |

☐  Generate Collection  | Print |


L17: Entry 2 of 2                      File: USPT               May 15, 2001


DOCUMENT-IDENTIFIER: US 6233576 B1
TITLE: Enhanced security for computer system resources with a resource access
authorization control facility that creates files and provides increased
granularity of resource permission


Brief Summary Text (23):
4. It is not easy to define a formal description of the global security system,
suitable for its rigorous analysis; and

Detailed Description Text (107):
Once again, this arrangement is suitable for operating systems such as IBM's AIX
operating system which use the /var filesystem to hold data files related to
installed products.

**Display Format:** |- |  Change Format

Previous Page        Next Page        Go to Doc#